Algoritmo 01 - A*

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function BEST-FIRST-SEARCH(problem, f) returns a solution node or failure
  node ← NODE(STATE=problem.INITIAL)
  frontier ← a priority queue ordered by f, with node as an element
  reached ← a lookup table, with one entry with key problem.INITIAL and value node
  while not IS-EMPTY(frontier) do
    node ← POP(frontier)
    if problem.IS-GOAL(node.STATE) then return node
    for each child in EXPAND(problem, node) do
      s ← child.STATE
      if s is not in reached or child.PATH-COST < reached[s].PATH-COST then
        reached[s] ← child
        add child to frontier
  return failure

function EXPAND(problem, node) yields nodes
  s ← node.STATE
  for each action in problem.ACTIONS(s) do
    s' ← problem.RESULT(s, action)
    cost ← node.PATH-COST + problem.ACTION-COST(s, action, s')
    yield NODE(STATE=s', PARENT=node, ACTION=action, PATH-COST=cost)
```

OBS 1: primar pela modularização e separação algoritmo-problema, conforme explicado em sala

OBS 2: o custo total deve ser medido pelo custo real + custo estimado pela heurística, conforme literatura relacionada

OBS 3: a função heurística deve ser elaborada conforme o problema a ser resolvido

OBS 4: pensem em problemas interessantes; obviamente, o problema do labirinto está fora de questão pois já foi tratado na aula inaugural